



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4074D  
UNIQUE ID NUMBER: 3PW063  
COMBUSTOR:  
ENGINE TYPE: TF  
BYPASS RATIO: 6.7  
PRESSURE RATIO ( $\pi_{o0}$ ): 31.8  
RATED THRUST ( $F_{o0}$ ) (kN): 333.2

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>o0</sub> (g/kN) or SN	8.9	47.9	69.5	4.4
AS % OF ORIGINAL LIMIT	45.4	40.6	67.1	25.9
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			83.9	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			98.6	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			111.2	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			129.6	

### DATA STATUS

- PRE-REGULATION  
x CERTIFICATION  
- REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
- DEDICATED ENGINES TO PRODUCTION STANDARD  
- OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
(ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
x OUT OF PRODUCTION (DATE: - )  
- OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>o0</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	2.949	0.03	0.23	42.35	
CLIMB OUT	85	2.2	2.416	0.05	0.25	34.48	
APPROACH	30	4.0	0.810	0.08	0.64	11.88	
IDLE	7	26.0	0.239	5.07	34.34	3.81	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1010	1926	13036	19971	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>o0</sub> (g/kN) or AVERAGE SN (MAX)				5.8	39.1	59.9	3.4
SIGMA (D <sub>p</sub> /F <sub>o0</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>o0</sub> in g/kN, or SN)							

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW)  
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS  
AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.1-101.6
TEMPERATURE (K)	292.8-302.6
ABS HUMIDITY (kg/kg)	0.0097-0.0112

### FUEL

SPEC	Jet A
H/C	1.92
AROM (%)	

MANUFACTURER: Pratt & Whitney  
TEST ORGANIZATION: Pratt & Whitney  
TEST LOCATION: East Hartford, CT  
TEST DATES: 15/06/1996-16/06/1996

### REMARKS

1. Data from Report PWA-6678

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)